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**Bellcore**

Ⓐ Bell Communications Research

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY  
**Michael S. Slomin**

Senior Attorney

ORIGINAL  
FILE

December 28, 1992

Ms. Donna R. Searcy, Secretary  
Federal Communications Commission  
1919 M Street, N. W.  
Washington, D. C. 20554

Dear Ms. Searcy,

Re: Administration of the North American Numbering  
Plan,  
CC Docket No. 92-237

Pursuant to the Commission's Notice of Inquiry in CC  
Docket No. 92-237, released October 29, 1992, on behalf  
of Bell Communications Research, Inc. (Bellcore) as  
Administrator of the North American Numbering Plan,  
please find enclosed an original and six copies of its  
"Comments of Bell Communications Research, Inc.  
(Bellcore) as Administrator of the North American  
Numbering Plan" in the above proceeding.

Please stamp and return one copy to confirm your receipt.  
Please communicate with me, or with Mr. Joel Ader of our  
Washington, D.C. offices, should you have any questions  
concerning this matter.

Sincerely,



Michael S. Slomin

Enclosures

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D. C. 20554

In the Matter of )  
 )  
Administration of the ) CC Docket No. 92-237  
North American Numbering Plan )  
 )

Comments of Bell Communications Research, Inc. (Bellcore)  
as Administrator of the North American Numbering Plan

Introduction

As the Commission is aware, the function of administering the North American Numbering Plan (NANP) was performed by AT&T from 1947 until divestiture. This function was assigned to Bell Communications Research Inc. (Bellcore) in the Plan of Reorganization implementing divestiture that was entered and approved by the MFJ Court. As the current administrator of the NANP (hereafter, NANPA), Bellcore has administered the numbering plan and related numbering resources for World Zone 1, which includes the United States, Canada, Bermuda and 15 Caribbean nations. In its capacity as NANPA, Bellcore offers comments in response to the Commission's Notice of Inquiry (Notice) herein, released October 29, 1992.

NANPA believes that certain objectives should be pursued in number administration so as to minimize costs, promote efficiency, and allocate scarce resources in a manner that promotes the interests of the telecommunications industry and the public overall. The current NANPA has pursued them (and will continue to do so if it continues in that role). However, others can similarly perform the NANPA role effectively, provided that these objectives continue to be pursued. Although NANPA believes that it has done an

effective, impartial and fair job of administering the numbering plan, we offer no opinion in this initial filing as to whether the function should continue to reside at Bellcore or move to a separate entity.

In two rounds of filings on the petition that led to institution of this inquiry, NANPA highlighted the domestic and international concerns that it and any other administrator must address in performing its numbering administration functions. In the interest of brevity, rather than repeating these points here NANPA incorporates them by reference.<sup>1/</sup>

#### Phase I: Overall Administration of the NANP

Number administration is currently performed by a small group of subject matter experts within Bellcore. The individuals in this group have no responsibilities other than number administration, and are charged with performing their number administration impartially, in a manner that confers no competitive advantage on Bellcore's owners or exchange carriers over others.<sup>2/</sup>

Numbering resources currently administered by NANPA include numbering plan area (NPA) codes, service access codes (SACs), N11 codes, carrier identification codes

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<sup>1/</sup> Comments of Bell Communications Research, Inc. as Administrator of the North American Numbering Plan in DA 91-1307, Dec. 20, 1991; Reply of Bell Communications Research, Inc. as Administrator of the North American Numbering Plan, Jan. 17, 1992.

<sup>2/</sup> The NANPA group is free to receive input on technical issues that affect numbering administration from other subject matter experts in Bellcore (for example information on capabilities of switches and operation support systems), but the NANPA group otherwise treats Bellcore and owner organizations alike with unaffiliated ones. NANPA holds discussions with a broad range of affiliated and unaffiliated telecommunications entities and trade associations, none of which have any special ability to influence decisions.

(CICs), automatic number identification (ANI) II digits, vertical service codes, and 800 and 900-NXX codes. Central office codes (in the NXX format) are administered by local exchange carriers except in the 809 NPA, which serves Bermuda and the Caribbean; NANPA administers these NXX codes, which have a function comparable to NPAs or even country codes in that they route calls to independent nations. Because of its unique status in the industry, NANPA has occasionally been called upon to perform other numbering-related functions that need to be performed centrally. Thus, ANSI-accredited standards body Committee T1 has contracted with NANPA to administer Signaling System 7 network codes for the standards body. And, US West has asked that NANPA consider central administration of number assignments in the 555 NXX nationwide (if use of 555 to access numbers in addition to directory assistance is feasible).

NANPA treats the numbers it administers as a public resource that must be used to meet the needs of the telecommunications industry as a whole, not just in the United States but in all eighteen nations that comprise World Zone 1. Over the years, certain fundamental principles and objectives have evolved to guide numbering plan administration, and NANPA firmly believes that they should continue to be honored regardless of what entity or entities perform number administration. These principles include:

- Impartiality:       Number assignments should not advantage or disadvantage individual nations, industry segments or service providers.
- Conservation:       Numbering resources should be conserved and used effectively: (1) to provide for the continued availability of numbers for services that require them, and (2) to defer as long as possible the costs of numbering plan extension, which will be considerable.

- Consensus:** Numbering decisions (and in some cases delayed decisions and non-decisions) engender implementation costs. While government might through the exercise of regulatory authority require that these costs be borne, it is preferable for the private sector to do so voluntarily. Since NANPA has no authority to enforce its decisions, it must -- and should -- gain industry consensus to implement these decisions in standards bodies and industry forums.
- Leadership:** The administrator should recognize the need for action on numbering issues, and convene the industry for that purpose, using existing standards and industry bodies, or convening meetings for that purpose, as appropriate.
- Initiative:** The industry process for discussing and reaching consensus on issues is not always timely enough to meet urgent industry needs,<sup>3/</sup> and sometimes industry discussions may not reach consensus at all because of business concerns that might guide relevant sectors or participants.<sup>4/</sup> In such cases, there is need for the administrator to be able to make decisions and act on them, subject to regulatory oversight.
- Competence:** To administer numbering resources in a manner that best meets industry needs in a reasonable and practical manner, the administrator

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<sup>3/</sup> An example is the expressed need for NXX codes in an N00 SAC code to meet needs of personal communications service providers prior to 1995. (Although a specific N00 SAC has not been assigned for this purpose, assignment guidelines are being prepared on the assumption that such an assignment will be made.) The industry has not yet completed preparation of assignment guidelines for such codes, yet seven applicants for codes have claimed an urgent immediate need for codes, and have stated that they cannot wait until consensus is gained on final assignment guidelines.

<sup>4/</sup> For example, the industry failed to reach consensus on the issue of a permissive dialing period following the introduction of expanded Feature Group D dialing arrangements using expanded carrier identification codes (CICs), now anticipated to occur in 1995. The plan for CIC expansion was debated in the Industry Carriers Compatibility Forum and consensus was reached to expand from the current 10XXX dialing (using three digit CICs) to 101XXXX (using four digit CICs), an approach that would initially accommodate transitional use of current 10XXX codes and once the transition had ended would accommodate future expansion to five digit CICs. Most of the industry favored such a transition, after which all calls dialed using a carrier access code would utilize 101XXXX dialing, but some carriers with today's three digit CICs argued that assignees of these CICs should be permitted to retain the 10XXX dialing arrangement indefinitely, or through a very long (10 year) "transition" period. NANPA opted for an eighteen month permissive transitional period, concluding that disparate dialing arrangements could improperly favor existing service providers with 3 digit CICs over new assignees, and invited those who disagreed with this conclusion to bring the matter to the FCC. To date, NANPA's decision has not been challenged.

must have and maintain competence on telecommunications and technology issues and developments that can affect numbering.

Bellcore as NANPA (and AT&T before it) has done a good job of administration, as the Commission acknowledges in the Notice herein. Numbering resources are valuable and scarce, and for that reason parties are occasionally unhappy if they cannot receive resources that are already assigned to others. NANPA tries to accommodate their needs if this is possible, and it encourages them to seek regulatory relief if they remain unhappy. Previous filings in this proceeding referred to complaints that desires of some sectors for number resources have not been satisfied to their complete satisfaction, e.g., requests for numbers for mobile telecommunications services, for service-specific NPAs, for provider-specific codes, etc. NANPA has responded to these in its previous filings, and incorporates those responses by reference now, rather than repeating them. NANPA submits that its record of performing an effective, impartial and fair job of administering the numbering plan speaks for itself.

Perhaps the most significant evidence of the importance of the principles and objectives outlined previously (and of NANPA's success in pursuing them) is that the viability of the basic NANP has been maintained for almost fifty years, despite the explosive growth of telecommunications and needs for telephone numbers; despite early indications that NPA code exhaust might occur as early as the 1970s (before new needs for telephone numbers such as facsimile, data, pagers and mobile telecommunications became significant); and despite the fact that our numbering plan is an integrated plan serving eighteen nations. The numbering plans used in England and Australia, for

example, serve fewer people than ours, yet they have exhausted significantly sooner than ours.

The interaction between NANPA and the industry has been positive, and many numbering issues have been resolved through cooperation and consensus in the industry bodies, particularly in the Industry Carriers Compatibility Forum (ICCF). Examples include planning for and implementation of carrier identification code expansion, and development of assignment guidelines for vertical service codes. Numbering issues currently being worked on in these bodies include assignment guidelines for interchangeable NPA codes (planned to be implemented in 1995), guidelines for assignment of central office codes in geographic NPAs,<sup>5/</sup> guidelines for assignment of NXX codes within a SAC to be assigned for personal communications services, and NXX codes within an interchangeable NPA code to be used for inbound international calls destined to World Zone 1.

Should the numbering plan not be administered effectively, the costs could be high and the effects on the industry and the public profound. For example, if resources are not conserved, the ten digit number format could exhaust early. Costs to both ratepayers<sup>6/</sup> and

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5/ This effort began when the Commission asked that Bellcore as NANPA lead an effort to develop central office code assignment guidelines. Although such code assignment has been (and in the view of NANPA should continue to be) performed locally, the Commission saw merit to development of guidelines that might apply nationwide. In response, NANPA convened meetings to begin this effort, and moved the effort to the ICCF when it became appropriate to do so.

6/ Everyone in World Zone 1 would have to change telephone numbers, resulting in massive inconvenience and costs associated with changing advertising, letterheads, business cards, etc. Furthermore, every software program and/or database that stores telephone numbers would have to be investigated to determine whether it could accept the new format; many would have to be modified to do so; and numbers would have to be changed to the new format. All of these would engender a substantial investment of time and cost. Finally, these effects are not limited to World Zone 1, as massive numbers of international calls are made to World Zone 1 locations, and callers worldwide will similarly have to modify their records of World Zone 1 numbers.

diversity of open bodies in which numbering issues are addressed, including standards bodies, industry forums, trade associations, and ad hoc meetings such as the central office code assignment guidelines meetings convened by NANPA, some industry segments have complained that these bodies may not consider their concerns adequately. Of course, this may simply be the effect of the fragmentation of numbering issues among such a diversity of groups, and the inability of all players to participate in all such groups.

In this regard, NANPA's Long Range Numbering Plan proposal<sup>9/</sup> has proposed the creation of an advisory council, with participation by regulators, to advise the administrator on World Zone 1 cross-industry numbering issues. NANPA believes strongly that this approach should be pursued regardless of what entity or entities perform administration, and that the first issue that the advisory council should address is how numbering administration should be funded in the future.

Finally, it is NANPA's view that for number administration to be effective, the administrator's responsibilities should encompass more than day-to-day ministerial administration. For example, experience has shown that the administrator must have the

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<sup>9/</sup> The first draft of the plan, The NANP Administrator's View of the Future of Numbering in World Zone 1, was issued for industry comment on January 1, 1992 as Bellcore IL-92-01-013. This document has been made broadly available to the industry and to regulators, including the FCC. A copy was filed in this proceeding as an attachment to NANPA's Jan. 17, 1991 Reply in DA 91-1307. Thirty-nine comments were received from the industry, and a new draft of the long range plan, incorporating and addressing these comments, is scheduled for release in the next several weeks. In March, 1993 the administrator will convene an industry meeting to discuss the revised plan and related future actions.

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ability to exercise some judgment in interpreting assignment guidelines.<sup>10/</sup> Even more important, it is NANPA's view that planning must continue to be part of the administrator's functions. The administrator needs to monitor the availability of numbering resources and their rate of exhaustion, plan for relief well before exhaust occurs, and lead the industry toward implementation of reasonable, practical and efficient plans. Like day-to-day administration, this planning function is performed in close cooperation with the industry, and subject to regulatory supervision and oversight.

NANPA has authority to "enforce" any planning decisions, but the exercise of technical leadership by whatever entity serves as NANPA is needed to promote continued nationwide and worldwide compatibility of numbering plans, and the efficient use of scarce numbering resources.

#### Phase II: Feature Group D Access Codes

NANPA welcomes the Commission's inquiry into Feature Group D access codes. The telecommunications industry has worked diligently to prepare a plan to expand the carrier identification code resource, which, as the Commission is aware, is depleting rapidly. As part of that effort, a group was established to examine technical alternative arrangements to the plan of record for expansion, but no viable alternatives were identified.

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<sup>10/</sup> For example, NANPA administers Signaling System 7 network codes under contract to Committee T1. Several requests for assignment have been received that were outside the scope of the assignment guidelines adopted by Committee T1. Because NANPA's contractual duties do not include interpretation of the Committee T1 guidelines, these requestors have had to submit contributions to Committee T1, to present and argue their case at T1 meetings, and wait for T1 direction.

Implementation of the Feature Group D CIC expansion plan is in progress, and the introduction of the new Feature Group D dialing arrangement is projected to occur in the first half of 1995. Although these expansion plans were discussed thoroughly in the industry over a period of several years, the general public may be less aware of the new dialing arrangement. Action by the Commission may provide publicity about the changes to come, and provide the public the opportunity to voice any concerns they may have.<sup>11/</sup>

Respectfully submitted,

BELL COMMUNICATIONS RESEARCH INC.

by:

  
Michael S. Stomin

Its Attorney

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December 28, 1992

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<sup>11/</sup> As noted previously, the disputed issue of how long a transitional permissive dialing period in which the current 10XXX dialing arrangements may continue to be used along with the new ones has apparently been resolved by NANPA's decision -- subject to regulatory review and oversight -- to utilize an eighteen month period. We would urge that the Commission not reopen this issue.

## CERTIFICATE OF SERVICE

I, Elizabeth M. Scott, certify that a copy of the foregoing Reply of Bell Communications Research, Inc. (Bellcore) as Administrator of the North American Numbering Plan was served on this 28th day of December, 1992, by First Class United States Mail, postage prepaid, to the following persons, except where otherwise noted:

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December 28, 1992